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U. S. Steel
Gary Works
One North Broadway
Gary, IN 46402-3199

July 30, 1993

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FCC - MAIL ROOM

**Ms. Donna R. Searcy, Secretary
Federal Communications Commission
1919 M. Street, N.W. Room 222
Washington, D.C. 20554**

**Re: PR Docket No. 92-235 /7FCC RCD8105 (1992) Replacement of
Part 90 By Part 88 to Revise the Private Land Mobile Radio
Service and Modify the Policies Governing them - Gary Works,
U. S. Steel Group, A Unit of USX Corporation Reply Comments**

Dear Ms. Searcy:

***In the Public Notice of March 1, 1993, reply comments were solicited from
all affected and interested parties.***

***After a preliminary study for the subject Proposed Rule Making Notice and
Comments submitted by NABER, LMCC and Coalition of Industrial and Land
Transportation Land Mobile Radio Users, there are some areas of concern
which are reflected in our comments.***

***As requested, we are respectfully submitting our reply comments for your
consideration.***

Respectfully Submitted

**By: Robert D. Dunham
Division Manager
Energy & Environmental Control
Mail Station 70**

RDD/djb/DN92-235
Attachment

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

<i>In the Matter of</i>)	
)	
<i>Replacement of Part 90 by</i>)	
<i>Part 88 to Revise the</i>)	<i>PR Docket No. 92-235</i>
<i>Private Land Mobile Radio</i>)	
<i>Services and Modify the</i>)	
<i>Policies Governing Them</i>)	

To: The Commission

COMMENTS OF
GARY WORKS, U. S. STEEL GROUP,
A UNIT OF USX CORPORATION

BY: Robert D. Dunham
Division Manager
Energy & Environmental Control
U. S. Steel Group

A unit of USX Corporation
1 North Broadway, MS 70
Gary, IN 46402-3199
(219) 888-4500

July 30, 1993

EXECUTIVE SUMMARY

USX Corporation was founded in 1901, and in conjunction with its subsidiaries operates facilities throughout the United States and several other countries.

The diverse nature of operations and processes employed in the normal course of activity has necessitated the use of radio frequency equipment on an ever increasing scale.

The radio frequency equipment is used either in the digital or analog mode for remote control, telemetering, tracking, communications, paging, security and fire protection, safety and medical, ship to shore coordination, power generation - distribution, dispatching, relay protection and many other applications.

The radio frequency spectrum which is used at Gary Works starts at the low kilohertz level and goes all the way up to the upper megahertz range as covered in the proposed Part 88.

As an end user of radio frequency equipment we commend the Federal Communications Commission for its efforts in streamlining the rules in Part 90 to make them more " user friendly " and to expand the usable radio frequency spectrum while creating incentives for development of new and innovative technology.

Since the radio frequency equipment owned and operated by Gary Works represents a multimillion dollar capital investment, we are concerned and interested in the final outcome of the proposed rules and the implementation deadlines.

In order to gain a full appreciation of the impact of the Notice of Proposed Rule Making, we have reviewed the following:

- 1 ♦ Federal Communications Commission "Notice for Proposed Rule Making - 7FCC Rcd 8105 (1992) PR Docket No. 92-235 of November 6, 1992 and subsequent related notices.***

2 ♦ Pertinent comments submitted to the Federal Communication Commission by the following:

- **National Association of Business and Educational Radio**
- **Land Mobile Communications Council**
- **Coalition of Industrial and Land Transportation Land Mobile Radio Users**
- **Radio Frequency equipment manufacturers**

As an end user of radio frequency equipment and due to our involvement and exposure to emerging technologies, we agree and support many of the comments made by NABER, Land Mobile Communications Council and the Coalition of Industrial and Land Transportation Land Mobile Radio Users.

In adopting and implementing the new Rules, a measured flexible approach should be taken in order to make allowances for the following:

- 1 ♦ *Implementation target dates should be set in conjunction with the development of new technology. Additionally, time must be allotted for fine tuning and establishing the degree of reliability necessary for acceptance as proven fault free technology for industrial and commercial applications.***
- 2 ♦ *Phasing in of the new rules and target deadlines for migrating to new equipment based on proven technology and compatibility with the new narrowbanding should not impose an additional financial burden on end users or jeopardize the integrity of existing operating systems.***

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Replacement of Part 90 by)
Part 88 to Revise the) *PR Docket No. 92-235*
Private Land Mobile Radio)
Services and Modify the)
Policies Governing Them)

To: The Commission

COMMENTS OF
GARY WORKS, U. S. STEEL GROUP,
A UNIT OF USX CORPORATION

Gary Works, U. S. Steel Group, respectfully submits its comments in response to the Commissions' Notice of Proposed Rule Making in the above captioned proceeding (" NOTICE ").

I. BACKGROUND

USX Corporation is a Delaware Corporation founded in 1901, engaged in activities related to:

- Petroleum products and Derivatives*
- Iron and steel products and related resources*
- Oil and gas*
- Natural gas transmission*
- Engineering*
- Utility subsidiaries*
- Import/export*

***Some of the activities conducted by USX Corporation are covered under S.I.C.:
3312: 1011: 1311: 2911: 4922***

USX Corporation is comprised of the following subsidiaries:

- ***Delhi Gas Pipeline Corporation***
- ***EMRO Marketing Company***
- ***FWA Drilling Company***
- ***Marathon International Oil Company***
- ***Marathon International Petroleum***
- ***Marathon Marine, Inc.***
- ***Marathon Pipe Line Company***
- ***Pan Ocean Energy Company***
- ***U. S. Steel Mining Company, Inc.***
- ***United States Steel Group***
- ***United States Steel International, Inc.***
- ***USX Engineers and Consultants, Inc.***
- ***CLAM Petroleum Co.***
- ***Marathon Oil U.K. LTD.***
- ***Marathon Oil Company - Norway***
- ***Marathon Oil Indonesia, LTD.***
- ***Marathon Oil Netherlands, LTD.***
- ***Marathon Oil Ireland, LTD.***

USX Corporation is also participating in the following joint ventures:

- ***National Oil Well***
- ***USS - POSCO Industries***
- ***USS - KOBE Steel***

The diversity and complexity of operations and facilities which are part of USX Corporation made it imperative to maximize the use of radio frequency equipment in order to reduce operating costs, increase productivity and margins of safety and maintain a competitive position in the market place.

Therefore, over the years, USX Corporation has invested a substantial amount of capital in radio frequency equipment and will be affected significantly by proposed changes.

II. COMMENTS

1 - MIGRATION TO NARROWBAND TECHNOLOGIES AND TARGET DATES

Since narrowbanding is a very complex process, in many instances it cannot be accomplished with existing equipment. Therefore, timetable and target dates for narrowbanding should be extended to allow for:

- Development, testing and fine tuning of the new technology needed for narrowbanding.*
- A sufficient time period to allow the amortization of the existing equipment and capital formation to cover the cost of new equipment and any hidden costs related to the modifications.*
- Congressional action needed to provide credits and incentives to support the additional costs incurred in the conversion.*
- Development of a workable migration plan which would not cause disruptions of existing operations and would incorporate the mechanisms to revisit the results from the narrowband channelization in the 220 - 222 MHz band and to make necessary corrections based on this gained experience.*

2 - GRANDFATHERING OF PRESENTLY AUTHORIZED AND LICENSED FREQUENCIES

Gary Works supports NABER's position on grandfathering of frequencies in all frequency bands for paging and for digital and analog applications.

3 - DISRUPTION OF EXISTING OPERATIONS AND PERSONNEL AND PUBLIC SAFETY

Gary Works is using radio frequency equipment in analog and digital mode for a multitude of applications which are vital to the business operations.

Some of the applications which are dependent on radio frequency equipment include the following:

- ***Communications and Paging***
- ***Telemetry for process control and monitoring***
- ***Remote control for process control, cranes, locomotives, etc.***
- ***Tracking and interface with mainframe system***
- ***Power generation, distribution, dispatching and relay protection systems***
- ***Ship to shore links and coordination***
- ***Safety and security protective and monitoring systems***
- ***Fire protection systems and dispatching***
- ***Medical emergency dispatching, operations and network linking to other medical emergency facilities***
- ***Oil and gas exploration, production and transmission systems, control and monitoring***
- ***Maintenance operations***
- ***Control and monitoring of conveying systems***

The radio frequency equipment is an integral part of various facilities and processes and necessitated considerable engineering and coordination in order to develop seamless integration and a reliable operating system. Therefore, the cost of the conversion to narrowbanding will be considerable when considering the following:

- ***Re-engineering and coordination costs***
- ***Downtime of productive facilities***
- ***Cost of new radio frequency equipment, along with installation and modifications to existing facilities to accommodate the new equipment.***

Personnel and Public Safety is of paramount concern to USX Corporation. Some of the radio frequency equipment is used in areas involving molten metal, remote controlled locomotives and other remote controlled equipment, natural gas and petroleum derivatives and other operations.

In these operations, any kind of interference or malfunction could cause extensive property damage or create conditions which might be hazardous to personnel. Thus, it is extremely important to ensure that the new

narrowband technology will be faultless and that during the transition stage we are able to guard existing systems against potentially hazardous conditions.

4 - COSTS OF CONVERSION TO NARROWBAND SYSTEMS

Currently, there is a multimillion dollar cumulative investment in radio frequency equipment which is used at our various facilities.

A considerable cost will be encountered in migrating to the narrowband systems. This cost will place a large financial burden on USX and any other businesses with similar applications of radio frequency equipment. The size of the financial burden will necessitate the development of a migration plan which will allow ample time for the necessary capital formation and prorating of expenditures over an extended period of time so as to minimize any adverse effects on the financial and competitive condition of the businesses affected.

The progressive conversion to an initial narrowband width of 12.5KHz and an ultimate width of 6.25 KHz should be designed to prevent these changes in equipment from occurring in too short a time interval.

Once a bandwidth and equipment change is mandated, that equipment viability should be preserved for the normal life and depreciation cycle in order to allow full use and amortization of the equipment. A plan which would necessitate an additional change of equipment prior to full amortization of the initial set would compound the financial burden placed on businesses.

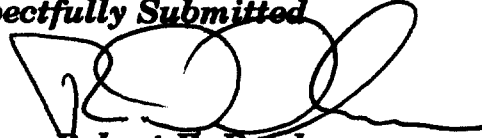
5 - POWER/ANTENNA HEIGHT LIMITATIONS - ADVERSE EFFECTS

In many instances, the power level and antenna height selection was established by considering the following site conditions:

- Interference considerations*
- Signal integrity versus degradation of coverage*
- Existing structures and terrain conditions*

Changes in the transmitter power/antenna height may pose interference problems, degradation of signal and coverage, and logistical problems with existing structures/buildings and terrain conditions.

Respectfully Submitted

A handwritten signature in black ink, appearing to read 'R. Danham', with a large, stylized loop at the end.

By: Robert D. Danham
Division Manager
Energy & Environmental Control
Mail Station 70